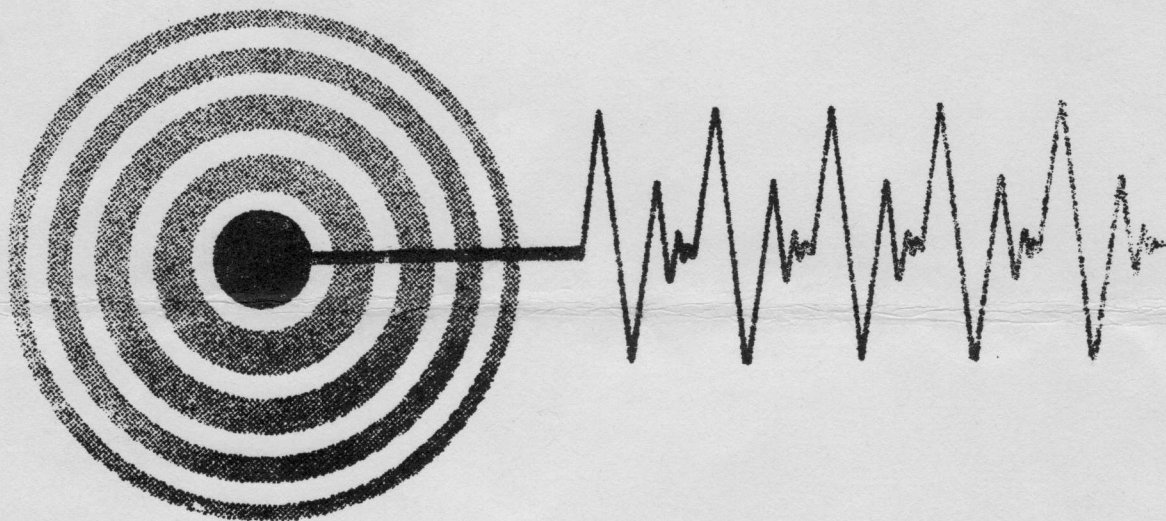


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journal of
AUSTRALIAN CO-ORDINATION SECTION
CENTRE FOR UFO STUDIES

P.O. BOX 546, GOSFORD NSW., 2250

AUSTRALIA

DEFINITION

We define the UFO as the reported perception of an object or light, seen in the sky or upon the land, the appearance, trajectory, and general dynamic and luminescent behaviour of which do not suggest a logical, conventional explanation and which is not only mystifying to the original percipients but remains unidentified after close scrutiny of all available evidence by persons who are technically capable of making a common sense identification if one is possible.

Dr. J. Allen Hynek

ACOS BULLETIN - NUMBER EIGHT - DECEMBER 1976.I N D E X

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EDITORIAL.

by H. Griesberg & D. Scargent
(Co-Ordinators)

ICJ

Some people may ask "Why study the UFO phenomenon, especially as it appears to be coming no closer to a solution?"

Of course, one answers that man always likes the challenge of a good problem (and also the satisfaction of finding a solution), and this is as true in ufology as in any other field. Neither do problems need to be important to be exciting; the discovery of the mating ritual of the Condor would hardly make world headlines - even in scientific periodicals - yet such research may be chosen by some ornithologists as their life's work.

Perhaps the UFO problem is in this category; a "specialized" mystery, the solution of which only illuminates a backwater of knowledge. If the UFOs are rare natural phenomena (e.g. a type of ball lightning) or some biological phenomena (e.g. swarms of luminous insects, as the "ghost lights" of Central Australia appear to be) the problem is a relatively minor, though still interesting one.

However, if the apparently psychic events associated with the UFO phenomenon are to be taken seriously, a new dimension of the problem opens before us, viz. the UFO phenomenon becomes the only psychic or psychic-related problem for which physical traces have been studied to any satisfactory extent. Thus, UFO research may indeed prove to be the key which unlocks the mystery of the parapsychical and answers, once and for all, the important question of whether psychic and parapsychical phenomena do point to some uncatalogued force of nature or whether the known forces are sufficient to explain anomalous phenomena - including UFOs.

A related problem is the exact nature of the phenomenon responsible for the UFOs and the way in which it utilizes the forces (whatever they are) manifested in UFO events. If UFOs are basically "natural", how are these forces made manifest in nature? If UFOs are extraterrestrial, what technology is able to control the "parapsychical"? If UFOs are creations of our own minds, how and by what mechanisms are we able to cause this phenomenon to become manifest? If these are relevant questions at all, the answers will have revolutionary impact upon our concept of reality, and for this reason alone, they need deep and serious study.

To finish off with a quote from Dr. J. Allen Hynek, who states:
"The UFO is one of the great mysteries of our age ... Its solution ... One of mankind's greatest challenges. When the long awaited answer to the problem comes, I believe it will prove to be NOT merely the next small step in the March of Science, but a mighty and totally unexpected quantum jump."

THE AUSTRALIAN COMPUTER FILE.

There are probably in excess of 2,000 UFO reports on file with the various groups throughout Australia, but, with the exception of a few hundred well known cases, the majority remain filed away, gathering dust and of no use to anyone.

The primary purpose of developing a computer storage system for UFO report data is to make all sightings data available for examination, as well as to provide a means of extracting patterns (if there are any) from the data, with one eventual aim of being able to predict when and where UFO sightings will occur.

The extent and nature of the phenomenon is virtually unknown outside Australia, and even amongst the Australian groups, little is known about current and past activity in other areas of the country. Having all the reports on a computer file will mean that any particular aspect can be referenced almost immediately.

One recent example of the time consuming task of extracting data by hand is the CE 3 Catalogue (Occupants) recently compiled by Keith Basterfield (UFOR Inc. SA) and Bill Chalker (UFOIC).

The catalogue took in excess of 18 months to put together by hand, while still more cases are emerging from the files. Having all the data on the computer file would mean that the same task would take about 5 minutes to complete.

It should be pointed out however, that having the data on computer file does not mean that we should do nothing else with it, rather, the computer should be regarded only as a means of storing data and sorting it once we have decided what we want to do with it. Likewise, the system will not work if all the available data is not put into the file.

The format for the computer file will be as distributed at UFOCON TWO, with the exception of the section dealing with colours. (we are still not happy with any colour system, including the Pantone chart - any ideas?). There has only been one reply to the format (TUFOIC) so it is assumed that everyone is in agreement with it. We understand that the Centre is also investigating color recognition charts, so we may be able to get some suggestions from them. (This will be finalised before reports are put into the file.)

As discussed at UFOCON TWO, it is planned to commence putting all reports as they are completed in 1977 onto the file. It is planned to have forms printed with boxes for each piece of information. These will be distributed to each group who will complete the form and send it to ACOS with their completed two copies of the report. During the course of 1977 it is planned that one person (to be selected) from each group will work back through the files and complete the data forms for each report, starting with 1976 and working progressively backwards, hopefully having all reports complete by the end of 1977.

At the end of 1977 we will supply a printout of all the reports on file to each group, for checking and to serve as a record. This will be done at the end of each year, to serve as a progressive record of reports.

Any member of ACOS (i.e. a member of the Executive of an ACOS affiliated group) can request a printout of any particular type of data (it would not be practical to do this until after the end of 1977), a copy of which would be supplied to each group.

Any member of the public (?) or ordinary member of a group may obtain a printout on payment of a fee (to cover costs) which will be set at a later date.

We have managed to locate a brochure and photograph of a UNIVAC 1004 which will be used as a part of a press release to be made on behalf of ACOS by UFOIC, early in January 1977. Copies of these press releases will be sent to all groups for distribution to the media.

The Australian UFO computer file will put Australia "on the map" in the world's UFO research, even Dr. Saunders' UFOCAT is limited to use on a University owned computer and cannot be used all the time. We therefore have the opportunity of leading the world in instrumented UFO research provided that all groups pitch in and ensure that all the data is provided.

Michael Smyth.

(P.S. Just as the Center's computer is referred to as UFOCAT, any ideas as to what we could call ours? Be pleased to hear any suggestions.

H. Griesberg)

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SOME NOTES ON A POINT OF DEFINITION.

by K. Basterfield.

Since the preparation of "An Australian catalogue of close encounter type three reports" which I co-authored with Bill Chalker, I have been reviewing my ideas on UFO "occupant" cases. I have also taken note of Paul Jackson's UFOCON 2 paper.

I recently re-read "The Humanoids" Ed. by Charles Bowen, "Flying Saucer Occupants" by C & J Lorenzen, "Les Extra-terrestes" by Jader U Pereira, "Passport to Magonia" by J Vallee and read "1973 - year of the Humanoids " by David Webb, and have also entered into correspondence with Dave Webb.

There exists a certain amount of confusion regarding the use of the terms "occupants", "humanoids", "close encounter type three" and "Anthropoid".

Currently "occupant" refers to an unusual entity or being which appears to be somehow connected to UFOs, e.g. entities in Betty and Barney Hill case or just an entity standing by the side of the road, e.g. Grafton 1973. We do not seem to have bothered too closely about the degree of association between the UFO and the occupant. Likewise a close encounter type three under Hymek's definition would be a close approach (within 500 feet) of an object with which is associated an occupant. To get over this, Dave Webb has used a much better term in "humanoid" in which "the entity must be observed entering or leaving a UFO or otherwise be in such proximity to the UFO so as to imply 'occupancy' to the witness " (1). Added to this the term includes cases of similar humanoids who are not observed in association with UFOs.

He also recognises two other classes of reports namely a) contactees and b) reports concerning monster or creatures. If the latter refer to ape-like creatures he uses the term "anthropoid".

Dave Webb in (1) has adopted a code from Ted Bloecher (2) and tabulated types of association as follows:-

Type A Humanoid is observed only inside the UFO.

Type B Humanoid is observed entering or leaving UFO.

Type C "Inferred" association, humanoid is observed in the immediate area of a UFO sighting but is not actually observed entering or leaving the UFO.

Type D "Circumstantial" association, humanoid is observed during period of general UFO activity but no object is actually reported by the witness of the humanoid.

Type E No association can be established between the humanoid and UFO activity.

Now to people studying the UFO phenomenon we are interested in UFOs, and not so much in yetis, yowies, big foot, etc., although we should possibly retain these reports also. So to avoid confusion on terminology that exists at the moment, I would like to suggest that a new system of

terminology be created as follows:-

Entity (3) report class A (ERA)

"A UFO report in which an entity is seen inside, leaving or entering or in close proximity to imply "Occupancy". This entity can be human, humanoid, anthropoid, or monster-like in appearance. The distance between observer and UFO-related entity is of no effect."

COMMENT - This covers the term "occupant" and a CE3, and Dave Webb's A-C degree of association.

Entity report class B (ERB)

"A report where an entity is observed, there is no associated UFO, but the entity is similar to a type which has been reported in association with a UFO previously."

COMMENT - This covers the term "humanoid" and Dave Webb's 'D'.

Entity report class C (ERC)

"A report where an entity is observed but no association between the entity and the UFO phenomenon can be established at the moment."

COMMENT - This covers cases of yetis, yowies, big-foot, black panthers, etc. and Dave Webb's 'E', and anthropoids class.

Entity report class D (ERD)

"A report which involves purely seemingly telepathic, audio or 'invisible' being communications but which seems to have some bearing on the UFO phenomenon."

COMMENT - The Stuart case of New Zealand, 1954 might be classed here.

Thus any case would fall into ERA, ERB, ERC, or ERD. The actual degree of association between UFO and entity/communication falls from A to C, with D being a special category.

The appearance of the entity can then be described from:-

1. Human 2. humanoid 3. anthropoid 4. monster-like 5. apparitional
6. robot 7. other.

EXAMPLES: Kimba 04.02.73 ERA 2
Grafton Feb/mar 73 ERC2
Gum Creek 03.02.64 ERB 1

Within the Australian CE 3 catalogue:-

ERA cases would be numbers: 1,2,3,4,5,8,9,10,11,12,14,15,16,17,21,22,23,25, 26,29,30,33,34,35,36.

ERB cases would be numbers: 13,18,27.

ERC cases would be numbers: 6,7,19,20,24,28,31,32.

I would like to hear from anyone who has any thoughts on these notes, as I would like to suggest this classification be adopted by all ACOS member organisations, which would at least make our system of recording uniform. Comments might be addressed to Keith Basterfield, 3 Park Lake Drive Wynn Vale SA 5127 . (4)

- (1) "1973-year of the humanoids" David Webb, Pub. by CUFOS May 1976.
- (2) From Ted Bloecher 1975. "A Catalog of humanoid reports for 1974" in "MUFON 1975 UFO symposium proceedings."
- (3) 'Entity' - thing that has real existence (F or L ens, ent - being) from Pocket Oxford Dictionary definition.
- (4) An "Australian Entity study group" has been formed by myself along the lines of the MUFON Humanoid Study Group, anyone interested in this aspect of the UFO phenomenon is requested to contact me at the above address.

THE RATAN - 600.

In 1932, mysterious "radio signals" of extraterrestrial origin were received on the earth for the first time. Shortly afterwards, the new science of radio astronomy came into being. The Milky Way was the mysterious "radio station". It transpired that galaxies, nebulae and stars "shine" within the entire vast range of electromagnetic oscillations. However, our atmosphere so transparent in appearance, is pervious only to visible light and part of radio waves. It became clear that throughout millenia astronomers had been looking at the stary sky as if through a tiny window.

Radio astronomy has opened for scientists a window into the universe, which is a hundred millions times as large as the light window. Looking through this window, radio astronomers began to make wonderful discoveries with the aid of radio telescopes. Among them are the famous quasars, compact, starlike objects emitting more light than whole galaxies; the pulsars, exotic neutron stars, and remnant radio waves emitted millions of years ago.

New radio telescopes are now being built all over the world. One of the largest has recently begun to function in the USSR. Academician A. P. Alexandrov, President of the USSR Academy of Sciences, Three times hero of Socialist Labour, in his speech at the 25th CPSU Congress mentioned it among major achievements of the ninth five-year plan period that the Soviet Union could be proud of. It is the RATAN - 600, a unique radio telescope.

It can be best seen from a helicopter. From a bird's-eye view it looks like a huge round "ear". Not far from the village of Zelenchukskaya, Stavropol Territory, is an enormous disc made of metal plates, with a straight line glittering in the sun which almost completely intersects the disc through the centre.

The valley of the Zelenchuk river (from which the name of the old Cossack village is derived) is surrounded on all sides by the North Caucasian Mountains. On one of their summits, in the upper reaches of the river, one can see the cupola of an observatory, which has also the world's largest optical telescope with a mirror six metres in diameter. This is the USSR Academy of Sciences' Special observatory, where the two unique instruments the optical and the radio telescope will operate as a single complex, supplementing each other.

Astronomers came here because of the unusual transparency of the air in these mountains, while the attention of radio astronomers was attracted by the hollow protected against man-made interference by the mountains and its perfect natural rock. The platform under the radio telescope is a time-compressed mixture of pebbles, sand and earth, dozens of metres deep. A broad, strong foundation is of great importance for a radio-telescope. Should the foundation "breathe", the result of the observations will be distorted. The Zelenchuk radio telescope will receive radio waves on a short-wave band ranging from 8 millimetres to 30 centimetres. All key dimensions of the instrument should be accurate within a fraction of the wavelength. With such a huge installation this is not easy to achieve.

The RATAN-600 is an abbreviation for the radio telescope of the Academy of Sciences of the USSR, 600 metres in diameter. The telescope is about two kilometres in circumference, and it takes one at least half an hour to go along an infinite row of concave aluminium mirrors. Each mirror is a 2 metres by 7.5 metres rectangle. Every mirror is fixed on a strong metal truss mounted on a concrete pillar dug into the ground. The pillars differ in height so as to even out the roughness of the foundation.

The set of metal mirrors forming the reflector collect and focus radio frequency radiation from the universe. The RATAN is a reflecting telescope. It operates in principle like an optical telescope with a six-metre mirror,

the only difference being that it receives electromagnetic radiation of a longer wavelength. The annular structure of the radio telescope, which is able to change its shape, makes it possible to explore any part of the sky.

Telescope construction is based on this principle: the larger the collecting surface, the higher the sensitivity and the better the observation. True, a roundabout manoeuvre is also used in the form of so-called interferometers. The antennas are arranged at vast distances and their operation is co-ordinated. Antennas located on different continents, for instance have already been tried. There are projects for locating the second antenna on the moon. As a result, radio telescopes have become even more observant than optical telescopes. This method of observation, however, has one great drawback: observations can only be made on one wavelength. Reflecting radio telescopes can receive a wide range of radio waves.

However, in practice, antennas that are too big cannot be made mobile. The most reasonable limit is perhaps the 100 metre paraboloid of the mobile antenna used by the Observatory of the Max Planck Institute in the Federal Republic of Germany. Antennas of great dimensions are made immovable. The RATAN combines the merits of huge fixed telescopes and flexible ones. Its collecting surface may reach 10,000 square metres, which corresponds to a 130-metre paraboloid. But in the RATAN it is made up of the areas of the individual 895 reflectors already referred to. They are all mobil. It can rotate vertically and horizontally and can be moved backwards and forwards, enabling the observation of any part of the sky.

Each mirror looks like a simple aluminium panel. But this is only an outward picture. If one looks from behind, one will see 276 surfaces regulation points with screws and springs, making it possible to form a precise parabolic surface from the individual panels to bring radio waves into focus on a small antenna mounted on the roof of a special waggon, weighing about a hundred tons. It is the mobil focus of the telescope.

A small parabolic antenna brings the radio waves collected by a sector of the greater ring to a focus where they are received by a waveguide horn. There are several such horns. They are each tuned to their own wavelength, and are all arranged along the focal line. As the radio wave source moves through the sky, the signal received also moves along this line. As a result, each of the horns receives its own wavelength, thus enabling the scientist to immediately obtain the spectrum of the source. The signals are separated with the aid of special liquid nitrogen-cooled apparatus, greatly amplified, and sent to the electronic computer, for processing.

The electronic computers have an important role to play in this radio telescope. Thanks to them, it is now possible to quickly calculate the position of individual plates during the observation of any given part of the sky. When the second stage of the radio telescope is completed, the entire control system will be fully automated.

The electronic computers permit the tracking of the sources of radio waves as they move through the sky. The whole telescope is divided into four sectors, according to the four cardinal points. Each of them has 225 plates. Any sector may, in fact, be a separate radio telescope with its own focus. The southern sector is specially intended for radio waves source tracking. The straight strip in the centre of the telescope serves as a periscope. It transfers radio waves received to the parabolic reflector, from where they are sent to the mobile focus, which will move along the sector via curvilinear guidelines, thus tracking the source.

The assembly of the eastern sector of the radio telescope is now nearing completion. The northern sector has been in operation for almost a year. The nucleus of scientific workers has been formed at Pulkovo, the Main Astronomical Observatory of the USSR Academy of Sciences. There too, a small sector, the prototype of the RATAN - 600 was built to master the methods of observation.

The sun is one of the first objects to be studied with the aid of the new radio-telescope. The unique characteristics of the RATAN have made it possible to discover the so called radiochromospheric net. In the atmosphere of the sun, from the chromosphere down to the lower regions of the crown, about 10,000 light and dark spots have been revealed, which are due to the sun's microactivity. Scientists have thus obtained a new clue to the understanding of the chain of regularities underlying the processes occurring in the atmosphere of the sun and affecting life on our planet.

The radio frequency emission of Jupiter, Mars and Venus has been studied. The data obtained are a new valuable addition to that received with the aid of direct measurements by automatic interplanetary stations. Local research has been carried out to study the surface in the area where the Venera-9 and Venera-10 stations descended. By receiving radio waves from the whole planet, it will be possible to find out how typical they are for the other regions of Venus. With the aid of the RATAN, radio waves emitted by the polar caps of mars have been received for the first time. Possibly, this will help to ascertain whether they consist of ordinary ice or solid carbon dioxide.

Among the radio telescopes of our planet operating within the short wave (centimetre) range, the RATAN possesses record power of sight and sensitivity. As a result, Soviet radio astronomers have succeeded in receiving radio frequency emissions from three satellites of Jupiter.

The record parameters of the RATAN will have a still more important part to play in studying the mysteries of our galaxy and remoter space. The study of the nucleus of our galaxy has confirmed the complex structure of the regions emitting radio waves and the existence of a point source in its centre, whose nature continues to be an enigma. While observing Centaurus A, a radio galaxy which is the nearest to us, scientists saw an explosion in its nucleus. With the aid of the new radio telescope, radio emission was received from the farthestmost radio wave source known to mankind which is moving away from our galaxy almost at the speed of light.

Soviet scientists will now undertake a detailed exploration of the whole sky with the aid of the RATAN-600. This will no doubt enrich science with much new and valuable data.

B. Konovalov.

(We are very grateful to Bryan Hartley of NUFON in England for sending us this article. H. Griesberg.)

The following article was forwarded to us by Mr. Bryan Hartley of NUFON in England, as an address to the delegates of UFOCON TWO, but owing to a hold up within the postal system, unfortunately it arrived too late. We therefore print it in this Bulletin. NUFON is one of the overseas organisations, with which ACOS will be working together in an effort to try and work together as a team on an international basis.

H; Griesberg.

THE NORTHERN UFO NETWORK - ENGLAND.

by Bryan Hartley.

The Northern UFO Network, which is known as NUFON, started at the beginning of 1975. This Network publish their own Newsletter which comes out every month, and is known as the Northern UFO News.

The purposes of the Northern UFO Network, are as follows:

Firstly, to act as a liasion between the UFO groups in the north of England. This is to let the UFO groups in the north of England know of forth-coming events by publishing them in the Northern UFO News. Also, by using the newsletter, the groups are kept up to date on the latest sighting reports around the north of the country.

One point must be made, with the formation of NUFON. It was decided to have no bosses. All work that is done into the research and investigation of unidentified flying objects is voluntary. When a group or an individual researcher does a particular piece of research, there is nobody from NUFON behind them, telling them what to do. It is up to the group or the individual if they are going to make a good job of their research. As then on the outcome. On completion of any research that is done, it is going to be a benefit to all. But this does not only apply to researchers. It applies to all those who are involved with UFOs, be they involved in investigation work, in liasion work, etc. In this way, it has called for a better working relationship between the UFO groups and individual researchers, who are doing particular jobs.

We, who are connected with NUFON would like to see this idea of self participation expand over Britain and build a better working relationship within the UFO groups and individuals, but, like everything else, it takes time and effort.

We have taken a big step nearer to this idea though, with the two major groups of Britain getting together. The groups being the British UFO Research Association Ltd. and CONTACT U.K. They have just finished what hopes to be one of many meetings about pooling their resources and to stop a lot of the duplication of information which seems to go on with a good many groups. But a better working relationship has to be established first, and that has to be worked on with the council members of both groups.

Both groups have to sort out "what" they are going to publish, but this is still a long way off.

But, I would like to say, NUFON has covered a lot of ground in the working relationship between itself and the northern UFO groups. It is now noted that the majority of the UFO groups are helping each other in all fields of research and investigation work, and this is a good point as it shows that NUFON's ideals can be carried out. As I said at the beginning and I must stress this point that there are no bosses in NUFON. All groups keep their independence, which has stopped the friction, which would have arisen with people saying what this or that group will do. It is up to the groups or individuals involved with NUFON to help make this network thrive.

Also, NUFON is starting to grow outside of Britain with such people like Dr. J. Allen Hynek's Center for UFO Studies, where all sightings of UFOs of the north of England are sent to. And, recently joining rank and file with NUFON is ACOS, with which NUFON hope to establish a long and fruitful relationship, as I think that two networks like ours can do a lot to promote the research and investigation of Unidentified Flying Objects.

Groups associated with NUFON.

BUFORA	Northern Ireland.
BUFORA	Halifax, Yorkshire.
DIGAP	Bury, Lancashire.
FAPURG	Thornton-le-fylde, Lancashire.
MUFORA	Manchester, Lancashire.
MURO	Mansfield, Nottinghamshire.
NUFOIS	Nottingham. (Robyn Hood country)
PULSE	Preston, Lancashire.
RIGAP	The Fields, Haslingden.
SDRUFORA	Dinnington, South Yorkshire.
SPRING	Sherwood, Nottinghamshire.
SPUR	Kettering, Northamptonshire.
SUFORS	Scunthorpe, Yorkshire.
UFORA Staffs	Porthill, Staffordshire.
UFOSIS	Holloway Circus, Birmingham.
WUFORO	Wigan, Lancashire.
WUFOS	Bromborough, Wirral.

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AUSTRALIAN PHOTOGRAPHIC CASE CATALOGUE. (incl. New Zealand)

Over the past year, Darren Mitchell of UFOR inc. SA has been collecting and researching references to photographic cases that have occurred in Australia and New Zealand. The general purpose of this catalogue will NOT be to offer photographic documentation or 'evidence' for the UFO phenomenon but a collection of photographic cases of anomalous objects, even if their cause is known, e.g. hoax or natural phenomena, so as to represent a reference source in the analysis of future photographic cases.

A preliminary breakdown of the listed cases is as follows:
Approximately 60 % of the cases show diffused light sources (of these, NL cases represent a proportion of about 20 % or 12 % of the total number of cases.)

The remaining 40 % represent DD, gaseous objects, reflections etc. These cases are of a clearer nature and are generally taken during daylight hours. These however are usually of a higher probative value, because of clarity, reference points etc., and in a case of exceptional quality, a hoax is all one has to rule out.

However, the documentation of these cases to date is quite varied, from single newspaper reports to those that have undergone rigorous analytical investigation. As some of the cases listed below may have been investigated more deeply by individual organisations around Australia it would be appreciated if details of such cases could be forwarded to:-

D. MITCHELL c/o UFO Research Inc. S.A., 2 A CASTLE AVE. PROSPECT S.A. 5082.

Also if any cases other than those listed below are known, please forward any details.

(cases listed next page)

<u>Date.</u>	<u>Location.</u>	<u>Date.</u>	<u>Location.</u>
1) 10.10.1935	Newcastle N.S.W.	31) Nov.1968	Caulfield VIC.
2) 1953	Wilcannia N.S.W.	32) 20.2.69	Hawkesbay N.Z.
3) 4.4.1953	Numurkah VIC.	33) 21.3.69	Karlgoorly W.A.
4) 31.8.1953	Prt. Moresby N.G.	34) 4.6.69	Ballarat VIC.
5) 15.1.1954	Alice Springs N.T.	35) 5.7.69	Perth W.A.
6) April 1954	New Zealand.	36) 24.8.69	Moonah-Chigwell TAS.
7) April 1954	Eucla, W.A.	37) Spring 69	Alberton S.A.
8) 20.4.1954	Toowong, Bris. QLD.	38) 12.8.70	Nelson N.Z.
9) 29.4.1959	Blackwood S.A.	39) 30.8.70	Albury N.S.W.
10) 29.5.1961	Gundagai N.S.W.	40) 14.9.72	Bateau Bay N.S.W.
11) June 1961	Saint George QLD.	41) 19.9.72	Nth. Broadmeadows VIC.
12) 7.6.1961	Cairns QLD.		
13) 10.6.1962	Cape Hallet N.Z.	42) Dec.72	Rockhampton QLD.
14) 24.12.1963	Darwin N.T.	43) 1973	Bowen
15) 5.6.1964	Woomera S.A.	44) early 1973	Katoomba N.S.W.
16) 17.3.1965	Margaret Block Light-house.	45) March 73	Whyalla S.A.
		46) 15.6.73	Avondale Heights VIC
17) 28.5.1965	Bouganville Reef QLD.	47) Oct.73	Karoonda S.A.
18) 13.5.1965	Modbury S.A.	48) 16.3.74	Hilton Adel. S.A.
19) July 1965	Argentinian base Antarctica.	49) 16.4.74	Roseworthy S.A.
		50) 31.5.74	Tyringham N.S.W.
20) 16.8.1965	Manly N.S.W.	51) 20.8.74	Mt. Pleasant S.A.
21) 17.1.1966	Perth W.A.	52) 4.2.75	Balaklava S.A.
22) 24.1.1966	Perth W.A.	53) 12.5.75	Howrah TAS.
23) 31.3.1966	VICTORIA.	54) 15.6.75	Benalla VIC.
24) 2.4.1966	Balwyn VIC.	55) 21.7.75	Kempsey N.S.W.
25) 22.4.1966	Sydney N.S.W.	56) Late July 75	Condobolin N.S.W.
26) 24.2.1967	Penquin TAS.	57) Oct 75	Eltham VIC.
27) 5.3.1967	Hallam VIC.	58) 1.2.76	Highland Farm TAS.
28) 22.10 1967	Brisbane QLD.	59) 14.6.76	Engadine N.S.W.
29) 10.5.1968	Coogee Beach N.S.W.	60) 14.8.76	Croydon Sth. Melb. VIC.
30) 11.8.1968	Taree N.S.W.		

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PHOTOGRAMMETRY.

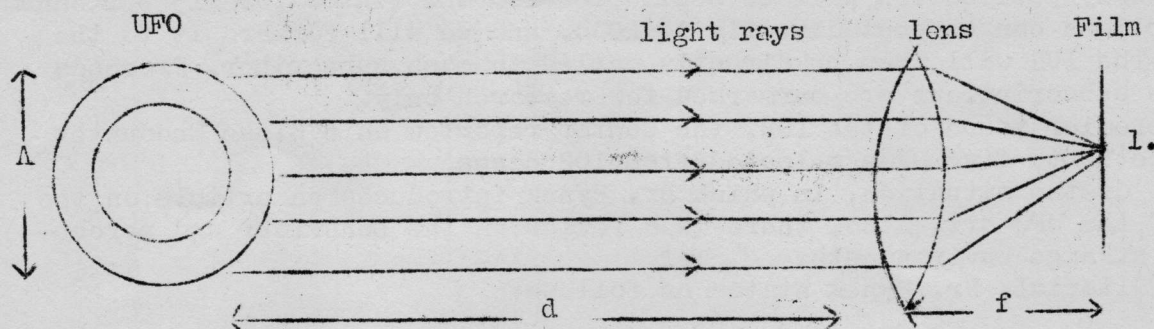
(from UFOLOGY-Summer 1976.)

Photogrammetry is the process by which UFO photographs are evaluated. Photogrammetric analysts use methods from projective geometry combined with certain laws of optics to arrive at conclusions about UFO size, distance and even speed.

The basic equation of photogrammetry is : $l = Axf/d$
Here (l) is the image size as recorded on film. (A) is the actual size of the object, (f) is the focal length of the camera used, and (d) is the distance to the object when it was photographed.

The image size (l) should be measured directly from the negative of the film used or may be taken from a print or projection where the proportions of enlargement is known. The focal length (f) of a camera is the distance from the optical centre of the lens to the point where the light rays converge on the film. The focal length is expressed in mm (milli-meters) on the lens of the camera. Although the distance (d) to the object when it was photographed can rarely be directly measured, it can be ascertained by setting up proportional equations using distances to known reference objects also photographed. Where no such reference objects are included in the photograph, (d) must be estimated either from the focus setting at the time the object was photographed or from the witness' testimony.

The last variable in the equation is the object's size or diameter (Λ). In the rare case where a UFO is photographed after leaving physical traces or a ring pattern, its size may be directly measured. Or, if it casts a shadow, its size may be triangulated from the sun's elevation at the time. Otherwise the size can only be estimated.



Suppose that after taking a picture of a UFO hovering above a tree 250 feet (i.e. 76.2 meters) away, we measure the UFO image on the negative and find it to be 1 cm. (centimeter). If the camera used has a lens with a focal length of, say, 50 mm, then we can determine the size of the UFO.

$$\Lambda = \frac{l \times d}{f}$$

$$\Lambda = \frac{(1\text{cm}) \times (76.2)}{(.05)}$$

$\Lambda = 15.2$ meters (or 50 feet).

On the other hand, if we estimate a UFO to be about 20 feet (i.e. 6m) across and we recorded an image size of say, 0.5 cm with a camera of focal length of 50 mm, we can determine the distance to the UFO when photographed:

$$d = \frac{\Lambda \times f}{l}$$

$$d = \frac{(6\text{m}) \times (50\text{mm})}{(.5\text{cm})}$$

$$d = \frac{(6) \times (.05)}{(.005)}$$

$d = 60$ meters (or 196.8 feet).

In cases where the UFO is captured on movie film, its speed can be calculated by comparing movement relative to reference objects with the number of frames per second taken by the camera.

Obviously, the accuracy of photogrammetric analysis depends on the quality of the photographic evidence. To aid this analysis one should attempt a series of rapid shots from different locations, trying to include as many reference objects such as trees, telephone lines, and buildings as possible. When more than one witness with a camera is available, they should attempt to simultaneously take pictures from greater than fifty feet apart. The creation of referenced parallax conditions should be the goal of all UFO photographers.

NEWS FROM THE CENTER.

THE INTERNATIONAL UFO REPORTER: The long awaited International UFO Reporter, the new publication of the CENTER FOR UFO STUDIES, has recently arrived. This monthly publication will be available from the Center for \$15 per annum. Subscriptions can be sent directly to ACOS, and we will forward it to the Center. The IUR will then be directly mailed to each subscriber. Proceeds from the subscriptions are earmarked for research only. In the premier issue of the IUR, the Center reported on a Close Encounter in Connecticut, five UFOs selected from 102 cases, Estimate of the situation, in which Dr. Hynek introduces an article on the state of the UFO art. Also, there is a review on the Behaviour and perception in strange environments. In the Editorial, Dr. Hynek states as follows:

"Whatever one may think about UFOs - whatever one may believe about their physical reality - whatever one may speculate about their origins, one fact has stood out over the past quarter of a century. UFOs continue to be reported by people the world over, and in all walks of life. The contents of these reports continue to intrigue, mystify, entrance and engage our imaginations. Even the skeptic can barely fail to sense the dramatic element in a well-documented, multiple-witnesses report of a UFO close encounter. Almost, always, each new UFO report bears some relation to previous reports, yet each is a new challenge to the inquiring mind. It is a challenge, but it is also a threat to establish ways of looking at things, to our present concept of reality. Each well investigated UFO report carries us closer to the edge of reality. It suggests that conventional ways of looking at things, what we accept as reality, may have to be changed, much in the same way as Einstein presented us with a new way of looking at the physical world. It suggests the need for a shift in outlook and for an allowance for things not yet known. Each age has had its change in scientific outlook, in its "world-view", and the UFO phenomenon may well point the way to the next such change.

What the change might be we can find only by diligent research. Quick guesses or wishful thinking will not do - only well supported, well executed research will eventually yield answers. It is becoming increasingly clear that the UFO is much more than that which merely fools the eye or deludes the fool. Much more - it is entirely new information, and only the unprejudiced mind is prepared to take advantage of, and meet, this new challenge."

NEW DOCUMENTS AVAILABLE. Two new documents are now available from the Center.

1. Catalogue of 200 Type 1 sightings \$5.
2. April 1976 CUFOS Conference Proceedings (Advance order) \$15.

(These can be ordered through ACOS).

A survey of possible UFO sightings by amateur astronomers.

Following is an abstract of a research project in progress by Gert Herb in association with the Center.

It has been said that amateur astronomers rarely report UFOs. They scan the sky systematically equipped with suitable optics during alleged peak UFO activity. So if UFOs exist, many more should be reported. But do they in fact see few UFOs, or is it that no one bothered to ask them? Whatever the answer, I expect that their possible observations of UFOs will yield more data than observations by the public. These considerations led to my survey involving at least 6000 amateur astronomers.

Given an adequate response, I hope to establish the following:

1. The relative sighting incidence among amateur astronomers, compared with that of the public.
2. The actual time of highest UFO activity.
3. Whether flaps are reflected in amateur astronomers' sightings (they should be less subject to social influences often alleged to cause flaps)."

Preliminary UFO information use survey.

George Eberhart, a graduate student at the University of Chicago, has conducted under the auspices of the Center the following survey. Its purpose was to: 1. Assess the level of activity of workers in the UFO field, 2. document the kind and types of sources utilized; and 3. better facilitate the Center's work in dissemination of information.

"Four hundred eighty-four questionnaires were sent out to active UFO researchers in May, and 33 % of them responded. (ACOS Co-Ordinators each filled one in and returned them.)

The majority had college degrees of some kind or at least college experience. Their fields of interest were quite varied, but there was a distinct tendency towards 'hard' sciences (15 people held degrees in physics). Their present occupations were equally diverse, with 'Professor' and 'Engineer' turning up most frequently.

Only 23 % indicated that they had NOT conducted any UFO research in the past year. Library research and writing were most frequently checked as a common activity, while field investigation and 'consultation' were the commonest secondary activities.

Spheres of interest in ufology were not as evenly spread as I had thought they would be. Close Encounters were listed as a major interest by 70.2 % of the respondents, closely followed by occupant cases favored by 65.8 %. Ancient astronauts and Fortean phenomena were tied for last place - only 12.4 % listed them as major interests.

44 % of those queried had written something on UFOs in the past 5 years. Astronomical literature was most frequently checked as a source of information on UFOs, followed by parapsychology and religion. 80% listed 'Conversation with scientists openly interested in ufology' as a source of information, compared with 91% listing 'Ufological literature', and 75% 'Correspondence.'

One fourth of all the respondents spent 2-4 hours reading UFO literature the week preceding their answering the questionnaire, and 11.8% spent over ten hours. Fourteen percent spent 2-4 hours gathering data in the field the same week.

The most popular UFO journals turned out to be (predictably) APRO Bulletin, Flying Saucer Review, and Skylook. The UFO books considered 'absolutely basic' for any library came in this order:

1. Hynek's UFO EXPERIENCE (102 votes)
2. Jacob's THE UFO CONTROVERSY IN AMERICA (27 votes)
3. Ruppelt's REPORT ON UFOs (22 votes)
4. The Condon Report (22 votes)
5. McCampbell's UFOLOGY (16 votes)

65 books in all were recommended.

The attitude towards different types of libraries was divided. 13 % said academic libraries were good sources of UFO data, while 18 % said they were poor. Seventeen % thought public libraries were good and an equal number thought they were poor. Probably depends on the library you use.

Quite a few people had complaints about library services in the field, and many had constructive suggestions for improvement. These included improved book selection, newspaper clippings and case files, and improved cataloguing and shelf arrangement for UFO materials."

(Ed. note. Might be an idea to circulate such a survey in Australia and check the comparison).

ACOS NEWS.

Formation of Australian Entity Study Group .

Keith Basterfield of UFO Research Inc. SA has formed the Australian Entity Study Group which will concentrate on collecting reports of "occupants" "humanoids", "anthropoids", and CE type 3 cases" from within Australia and New Zealand. The idea being to have one central point for the collection of data on these cases and to issue more detailed studies of entities following the issuing of the Australian CE3 catalogue.

The study group will independantly of any present ufo organisational setup and will merely consist of individuals who are interested in this aspect of the UFO phenomenon. In this respect it will not be a formal sort of organisation, merely a "study group". Any information collected by it will be widely disseminated to all ACOS organisations. If anyone is interested in joining this study group, would they please contact Keith Basterfield at 3 Park Lake Drive Wynn Vale SA 5127.

Formation of Australian Physical Trace Study Group.

Just as the above article sets out the formation of an "Entity" study group, Mr. Bill Chalker of Sydney wishes to set up a "Physical Trace" study group, to study cases where a UFO has left behind physical traces on the ground. Bill would be one of Australia's foremost Physical Trace case investigators. Those interested are asked to contact him at P.O. Box 1094 North Sydney N.S.W. 2060.

NEW I.D. CARDS.

As discussed at UFOCON TWO, it is intended to issue all UFO investigators in Australia with an identification card. The following information is now available on these cards.

Size will be approximately 87 x 55 mm (credit card size) and cost per card will be 25 cents. (Please fill in and order on the enclosed return circular.) These cards will be available about mid-January.

An Australian UFO organisation history.

ACOS would like to publish a brief history on the Australian UFO organisations. To do this we will need your help in supplying us with the following info.

1. Why and how your organisation was started.
2. Who started your organisation.
3. In what format.
4. What is the present format of your organisation.
5. Activities e.g. social, investigation, research etc.,
6. How many people are involved in your organisation e.g. members, committees investigators, researchers.
7. Publications, Both past and present.
8. Any other information you feel could go into this history.

If possible, this information would be required by about the end of January 1977.

AUSTRALIAN UFO REPORTS.

Bothwell Tasmania, 22,6,76 (TUFOIC)

Mr. Graham White while returning home from a football training session saw something strange. He was with Mr. Greg Turner at the time, walking towards his home, about 2000. At first he saw a white beam as if from a spotlight above their heads. This happened twice, the beam seemed to be coming through pine trees to the right of the road (south). The trees are about 20 feet high and cropped squarish. They stopped for couple minutes, waiting for light, nothing occurred, then went on to Turners house. (no noise at any time). Couple minutes after, from house, they saw rotating light beams, several to right across road 50 yards off, just above pine trees. Could see no source for light beams, they all came from one point in sky. The witnesses moved under a street light and the beams disappeared. Sighting lasted 5 minutes in all, saw beams 3 times. No other traffic at time.

Rochester NSW 13.7.76 (VUFORS)

Two witnesses, both female, one driving a motorbike, the other right behind in a VW combi-van, at 1930. Area was clear paddocks, no trees. On Midlands highway, saw single light approaching, when motorbike went into ditch. Second witness jumped from van (after stopping) and saw that light was forcing motorbike off road. Light swung around in front of van, and travelled down side of road. No sound emitted from light., was big and bright white, possibly 3 feet in diameter. It lit up the paddock, and car radio had a lot of static on it. duration about 5 minutes. Next day, had difficulty starting van engine, and had to be push-started several times.

BOYER TASMANIA 2.8.76 (TUFOIC)

Two men, on wood dump noticed something black in sky at 1730. Stood out against white stem of mill in distance. Seemed like a fine black mesh changing shapes all the time. Object was going from S to N and moving up into clouds and then down again. Round at first, then like a balloon, then football (oval). Then it had a point beneath which receded back up. Size 2-3 times moon. In view for 20 minutes, still daylight first, then dark. Then object went behind mountain and gone. Next day two more witnesses stated they also saw same object.

Bothwell Tasmania 22.9.76 (TUFOIC)

Witnesses (2) driving car at 1945 over plains heading W, noticed $\frac{1}{2}$ ball shape very bright red/orange colour to N of road. Glow area above. Weather misty, drizzle 100% overcast, no stars. Travelling at 40 mph, witness slowed to 30 mph or less, then sped up to get other witnesses. Object seemed to be 200/300 feet up, no more than $\frac{1}{2}$ mile away, in front of distant hills. Apparent size of $\frac{1}{2}$ moon. Very red in centre. In sight for $\frac{3}{4}$ mile, about minute to $1\frac{1}{2}$. Lost sight near edge of town. First glow receded, as if into object, then object just went out.

Karawinna VICTORIA 25.9.76. (VUFORS)

4 witnesses returning to Mildura. Rounded bend in road noticed group of red lights resting on ground in paddock 150 yards away. Lights began flashing and rose slowly, straight up, hover briefly, then drifted away to the E. After 300 yards, lights disappeared after a series of flashes. On Sept. 28 some witnesses went to site and noticed a 71 feet circle of discoloured grass where object believed to have been resting. In following days, 1 witness claimed suffering from severe neck pains and ear, requiring medical treatment. SAMPLES AT PRESENT BEING ANALISED.

Central Coast N.S.W. (UFOR CC)

The flap on the Central Coast of NSW which was reported in the last ACOS Bulletin has continued. Continuing where last Bulletin left off.

Sept. 19. At 1900, man noticed row of lights in N. No noise and lights stationary, lasted 10 minutes. Seemed to be 5 lights arranged in straight line, white and green.

Oct. 10. 4 cars in row driving through reserve, when fourth car overtakes all 3 and speeds off. Then two front cars speed off, and woman in third car wonders what's going on, when she looks out right window, and sees disc shape object with dome, stationary about 75 feet above car. Very frightened, she accelerates, and as she approaches town, sees one of the cars had pulled over by side of road, and two men talking looking back to where object still hovers in original position. Woman had to ring

her husband to pick her up as she was too shaken to drive home.

That same night, at 2000 hours, a creature was seen at Crackneck Lookout, about 4 miles away. (see above sketch reproduced by Bill Chalker). 2 young couples parked at lookout. At 2015 the two men, Tony and Nigel went to the nearby cliff edge. Tony describes event: ".... We heard some noises down there. We walked down and heard the noises ... we went up a bit further and heard more noises (like grass rustling and shuffling). So we walked up to little clearing in side of cliff, and looked down. We saw this thing crawling up the hill and it was all in an off-white colour ... we ran all the way back to the car and got inside. I was shaking like anything. We locked all the doors. We said (to the 2 girls Linda and Mandy) we saw something down there. ... They started to believe us. Then all of a sudden we saw **this thing** coming up through the trees. Nigel saw it first. He said to the rest of us that he saw it. We all looked down there and Mandy in front started to just scream.

I saw it from the knees to its head...all off white and its face - its eyes were just like fly's eyes ... and its mouth was just only round... I could distinctly see it had 3 joints in its arms. Its legs were huge. Shoulders were about 36 inches across. Its fingers were pointed. It seemed to approach the car momentarily, looked away when the car lights came on. Nigel then reversed the car as quick as possible and drove off. The creature also had no hair whatsoever. Immediately before the creature was seen, Linda saw a rectangular orange light out to sea, on the waters surface. The light was also seen on previous nights out to sea from the same spot.

